

CHAPTER 7: GOAT LEATHER PRODUCT DEVELOPMENT

7.1 Introduction

Where goats are slaughtered for home use in rural areas, skins are often discarded. This removes the value-adding potential that these skins possess. This chapter investigates the quality characteristics of leather from South African indigenous goats and reports on the development of several leather and leather-craft products. It also reports on the results of a market survey carried out specifically to investigate the market potential of the products developed.

7.2 Quality characteristics of goat leather

Goat skins are distinctive, have a pronounced and tough grain, and have traditionally been utilised in the book binding trade. The disadvantages lie in the smallness of the skin and the damage caused by the harsh South African conditions. Yet, goatskin has good stretch qualities, is tough and durable, and takes embossing and other types of decoration extremely well. Goat leather is mainly applied for clothing, hats, inner linings of shoes, suede and book binding, and small leather goods. Goat leather is very suitable for manufacturing of handcraft items. By introducing value-added processes in rural areas, there is a potential to increase the income of local people.

The International School of Tanning Technology (ISTT - previously the Leather Industries Research Institute) was commissioned to study the quality of indigenous goatskins. Goatskin leather produced from Boer goats fed four different diets supplemented either with or without growth hormones was evaluated for physical strength properties. Those animals fed the highest energy and protein diet and provided with growth hormone in the trail showed increased tensile and tear strength in the direction of the backbone. All other physical attributes of the leather showed no statistical differences between the different diets or with or without growth hormone supplementation (Jackson-Moss and Flowers, 1997). In a further study on Boer and

Indigenous goats (Jackson-Moss and Flowers, 1998), it was found that the more complex and nutritious the diet, the better the physical properties of the leather. The leather from goatskins obtained from goats fed the lowest quality ration showed the least strength, while the leather from goatskins from goats fed the most nutritious diets showed the best strength properties. The different diets had no influence on the lastometer or extension at grain crack results of the different leathers.

These results indicate that if goat farmers pay more attention to the feeding and management of their animals the quality of their skins could be improved. However, even under current conditions of production, goatskins can be considered a resource that should be exploited.

7.3 Goat leather product development

Tanning

Tanning is considered a rather high-tech operation requiring specific expertise, infrastructure and waste handling arrangements. To bring this type of technology within the reach of non-commercialised farmers or entrepreneurs it was necessary to investigate low-tech means of tanning goatskins. Two methods of tanning were investigated for their ability to be transferred to a small-scale scenario by the ISTT. These included vegetable tanning and chrome tanning. Both methods were successfully adapted for tanning in small 150 litre drums (Jackson-Moss, 1999).

Equipment necessary for this type of tanning includes a plastic drum of 150 litre capacity, a broom handle, a fleshing knife, a metal or wooden frame to stretch and dry the skins (as shown in the figure in Appendix 5) and obviously the necessary chemicals and water. The skins are first soaked, any flesh still on the skin is removed, and then the skins go through a number of steps using different chemicals. A tanning kit including the equipment and the chemicals was developed. A tanning course was developed and several have successfully been presented. With this type of system 10 skins can be tanned hair-on or hair-off per week.

Leather-craft development

The services of Craft Africa Projects Training (CAPT - Previously of LIRI) were solicited to assist in leather craft product design. It was decided that handmade articles, based on cultural tradition and decorated with uniquely South African designs, should be the cornerstone of the product development, which should have strong tourist appeal. This is similar to work done by the Ecuador government, the United Nations, and the International Labour Organisation in Ecuador where local weavers were taught to apply their traditional designs to modern products in the 1950's (Korovkin, 1998).

In the past, traditional leather articles utilised calf-skin, hair-on goat skin, and the pelts and skins of small mammals. However, hair-on articles will prove difficult to export, thus CAPT adapted several traditional designs to vegetable tanned, hair-off goat leather. Vegetable tanned leathers are easy to decorate with embossing, beading, dye-colouring, and branding. These techniques are used to enhance the leather articles.

The price for raw goatskins varies considerably. Current prices paid for dry goatskins vary between R 0.70 and R 9.50 per skin, depending on quality. The International School of Tanning Technology has provided figures of between R 0.50c to R 5 per salted skin. By means of tanning or manufacture of leather craft items, considerable value can be added to goatskins. A tanned skin's value is conservatively estimated at R 120 per skin. If the skin is used for ethnic leather craft, the added value could increase the price to R 500 per skin (Mike Ginn, Craft Africa Projects Training, 2004 – personal communication). These figures are considered conservative; good designs and decoration, skilled beading, and good marketing can increase the added value dramatically.

Products and designs would need to be market driven, but three potential areas of development of design were identified:

- Employment of the design potential of local features of interest to the tourist trade as decorative motifs to be incorporated into the leather craft. These would include local decorative emblems, beadwork and plaiting.

- The reintroduction of hair-on ethnic traditional leather previously in daily use. For the tourist trade these would be created in goat leathers, with accompanying swing-tags giving something of the history behind such pieces. (NOTE: There is a problem with regard to hair-on leather goods designed for the export market due to potential spread of bacteria etc. across national borders and resulting customs restrictions.)
- A variety of hair-off vegetable tanned goat leather bags, pouches, containers, slippers, hats and clothes, decorated in local area traditional beadwork, embossing, stamping and by other means and marketed either empty or containing potential local products, particularly of a medicinal or traditional “magic” nature. (NOTE: These items would constitute the major thrust of the Leather craft project).

The international and local tourist is more likely to purchase items of leather craft if something of the history behind the piece of leatherwork is available and if the item is useful. It is therefore imperative that swing tags are researched, prepared and attached to each item giving some of the background of the article and the people who have made it. Much can be made of the unique features of each region of South Africa, its pre-history, anthropology, history and its peoples. If available, local historians, anthropologists, palaeontologists, etc could be consulted.

In this regard the following were noted for various areas around South Africa for which product development was done:

- Local places of interest and landmarks.
- Local potential tourist attractions including social contact with the rural people of the area who are welcoming and friendly.
- Local people “types”, their interests and skills, both past and present. If the old tradition of using leather objects that formed part of the cultural heritage is revived and samples are created for sale to the tourist, there is good potential for sales. Leather craft linked to such history would find a market amongst tourists who had visited the area and at such venues as international airports.

- Plant and bird life of interest to visitors who are not familiar with the area.

An example of a product range developed for an Eastern Cape project is described and shown in Appendix 5.

Costing of items

Table 7.1 provides recommended prices for the products developed (Shown in Appendix 5). The prices are based on the cost of the materials and on the time taken to make the samples and thus are essentially wholesale prices. Beading and careful painting of leather with enamel coat paints; is labour intensive, but both add enormously to the appeal of the goods and should not be abandoned.

To provide the market with consistent supplies of these products, which take considerable amounts of time to manufacture, crafters should be encouraged to work collectively. Transportation costs to retail outlets could also be reduced if crafters could sell the goods from their work stations and, preferably, if they could be assisted in setting up craft cluster retail outlets.

Table 7.1 Recommended prices of leather-craft products developed (wholesale)

ITEM	RECOMMENDED PRICE
Slippers	R 220.00
Leather nxili	R 120.00
Old man's hair-on goat leather bag	R 160.00
Young man's veg and chrome goat leather bag	R 170.00
Beaded sueded leather pouch	R 27.00
Goat vegetable-tanned embossed key pouch	R 22.50

7.4 Leather articles market survey

For various regions different product ranges were developed. Market surveys were then conducted throughout each region to assess the marketability of each product range within a specific region. The products described above were specifically designed for the Eastern Cape. Therefore the market survey relevant to this area is described here. Other surveys were conducted and results of these are available from the author.

The following issues were addressed in this particular market survey: A brief discussion of the terms of reference, demarcation of the study area, a discussion of the methodology and sampling method, analyses of the data and results of the study and a discussion of conclusions and recommendations. The cooperation from respondents was excellent and they support the overall product concepts. Their opinions regarding the products with respect to quality, price, likes and dislikes etc. regarding the specific product range described above will be given.

The area included retail curio outlets in Port Elizabeth, East London, Grahamstown, Queenstown and surrounding areas on the N2 National Road. Major exporters of curios in the Pretoria/Johannesburg region were also included in the study since these areas have the greatest tourist through-flow.

The study included two major marketing divisions which will be discussed separately, viz.:

- Retail Curio Outlets and
- Major exporters of curios

Retail Curio Outlets

A questionnaire was compiled and circulated to project participants for comments and amended accordingly. During each interview notes were made of aspects not included in the questionnaire.

Craft Africa Projects Training (CAPT) in Grahamstown, produced several articles to be shown to respondents in order to obtain their views and comments. Recommended wholesale prices were provided by CAPT and these prices were displayed on the articles. Respondents were requested to comment on each individual article.

Lists of curio shops and outlets were obtained from Tourist Associations in the respective areas. Additional names were obtained from City Councils. CAPT also provided a full list of curio outlets in the East London area. All the names on the lists were contacted telephonically beforehand and appointments were made.

Respondents were visited in their shops and they replied on general questions in connection with the curio trade. All the articles were then displayed and their comments on each article were recorded individually. Interviews lasted from 1.5 to 2.5 hours per interview. All the known curio outlets in Port Elizabeth participated in the study. The most well-known outlets in the East London area were included. A total of 14 questionnaires were completed in the study area. A major curio shop in Pretoria was also interviewed. Although this outlet is outside the study area certain conclusions can be drawn from this information. The number of curio outlets (15) who participated in the study represents 82 per cent of the known curio outlets in the area.

Outlets varied according to the type of commodities stocked and traded. The following classification has been made including the number of shops visited:

- Gift shops (Trade in gifts, curios and African Craft) 5
- Shops specialising in African Curios 10

An attempt was made to obtain the turnover of the outlet per annum, but none of the respondents were willing to give this information. As an alternative, the interviewer classified the outlet as large, medium or small. The stock on hand in the shop was used as an indicator to determine the size. Some of the outlets trade in other commodities where African Curios form a sub division. In these cases the stock of African Curios was taken as the indicator. Of the 15 outlets surveyed seven outlets were classified as large, three as medium and five as small.

The respondents were requested to give an indication of the main buyers of their commodities. Main buyers have been classified as foreign visitors and local buyers. The results are shown in Table 7.2.

Table 7.2 Main buyers of curios according to size of outlet (%)

MAIN BUYER/SIZE OF OUTLET	LARGE	MEDIUM	SMALL	AVERAGE
Foreign visitors	68	70	31	67
Local buyers	32	30	69	33
TOTAL	100	100	100	100

Foreign visitors are the main buyers (68 %) of commodities in the large outlets. These outlets have the influence to arrange touring busses to stop at their shops. Small

shops are more dependent on local business. According to the survey results, only 31% of the small outlets' business is dependent on foreign visitors. Across all the outlets surveyed foreign visitors comprise 67 % and local buyers 33 % of the clientele. Only one of the outlets surveyed was involved with exporting products.

The respondents were requested to indicate if they experience an increase in demand for curios. Sixty (60) % of respondents felt that the demand was increasing, 20% indicated that the demand had stagnated (stayed the same) and 20% of the respondents felt that the demand had decreased. It is therefore accepted that an increasing demand is experienced, mainly as a result of an increase in tourism. A seasonal demand for curios is also experienced. Foreign buyers peak during November to May while local buyers peak during Easter, Christmas and school holidays. The origins of curios found in these outlets are shown in Table 7.3.

The large outlets buy most of their curios (61 %) from foreign countries. Smaller shops, on the other hand, import less from foreign countries, buying most of their curios (92 %) from local suppliers. The average percentages for the origin of curios were 54% foreign countries and 46% local suppliers. The main foreign countries supplying curios are Zambia, Kenya, Malawi, Swaziland, Namibia and other African countries. The quality of curios is generally good as buyers buy selectively. All the respondents classified imported curios as good. The quality of South African curios was classified as good by 47% of the respondents, as reasonable by 40% of the respondents and as poor by 13% of the respondents. It is clear from these analyses that South African curios are of a lower quality than imported curios. The quality of Eastern Cape curios, if available, was classified as good by 14% of the respondents, as reasonable by 36% of the respondents and as poor by 50% of the respondents. All (100 %) of the respondents indicated that a demand exists for good quality genuine South African curios. The availability of curios according to origin is shown in Table 7.3.

Table 7.3 Origin of curios (%)

ORIGIN/SIZE OF OUTLET	LARGE	MEDIUM	SMALL
Foreign countries	61	29	8
Local	39	71	92
TOTAL	100	100	100

Table 7.4 Supply of curios according to origin

ORIGIN/SUPPLY	GOOD	REASONABLE	POOR	TOTAL
Curios in General	43	43	14	100
South African Curios	20	47	33	100
Regional Curios	0	13	87	100

The sample items were shown to the respondents and they were requested to comment on each item individually in terms of quality, likes, dislikes, price and general recommendations. Each of the items is discussed separately.

Slippers

- 7 respondents were impressed with the article and thought it was a good idea.
- 6 respondents felt that it was only catering for a limited (foreign) market (because of price)
- 6 responded that the slippers were too expensive.
- 5 felt that it will not sell and they would not buy it.
- 3 commented that it looked like an Indian design.
- 3 respondents suggested it should have rubber soles.
- 1 respondent stated that shoes need too many sizes to stock in a curio shop.

Recommendation

- To simplify the design to make it more cost-effective.

Leather Bags

- 11 Respondents were impressed with the idea and thought it was an attractive article.
- 5 respondents stated that it would sell.
- 4 felt that it is authentic and caters for a specific market.
- 4 commented that the foreign market would not approve of the hair-on bag or any fur article.
- 4 suggested that the opening should be wider.
- 4 respondents felt that it could be more practical.
- 3 respondents commented that beading is not traditionally correct and suggested less beading.
- 2 respondents felt that the young man's bag was too big

Recommendations

- The bags must be designed in such a manner that it can be used as a consumer's article.
- The foreign market will buy it as a memento and want specific authentic meaning to it. Burn names onto leather such as "Handmade in South Africa, Transkei, and Wild Coast etc."
- Will sell more if the leather bags are simplified and more cost effective.
- The opening should be wider with a flap over the opening.
- Traditional articles do not necessarily sell well; it must have a practical purpose.

Key Holders and Beaded Pouch

- 10 Respondents stated that it would sell well as it is a light (travel friendly) article.
- 4 Respondents were impressed with the beaded pouch
- 2 Respondents stated that the beading is of poor quality.

Recommendations

- Respondents suggested embossing only would look more sophisticated.
- To print "Handmade by Xhosa" on key holder as it is popular with foreign buyers.
- Respondents suggested embossing the big five as it is usually popular and also ethnic designs or a Xhosa Woman and penguins, with "Eastern Cape", or the specific town.

All the respondents were of the opinion that the quality of the articles is very good. In conclusion, the following specific recommendations were made:

- The slippers were too expensive. It should be considered to reduce embossment on the slippers in order to bring the price down. A massive export market opportunity is not excluded if the price can be reduced substantially.
- It must be considered to adjust the design of the bags so that it may have consumer value.
- The key rings received positive reaction and there is no doubt that these articles will sell.

Recommended wholesale prices were attached to each article. The respondents were requested to express an opinion on the wholesale price of the articles. The results are shown in Table 7.5.

Table 7.5 Opinion of respondents on recommended prices of sample articles (% of respondents)

ARTICLE	WHOLESALE PRICE		
	High (%)	Reasonable (%)	Low (%)
Slippers	80	20	0
Goat Leather Nxili (Women's Smoking Poach)	33	67	0
Young Man's Goat Leather Bag	20	80	0
Old Man's Hair-On Goat Skin Bag	40	60	0
Embossed Key Ring	27	73	0
Embossed Key Poach	0	100	0
Beaded Suede Leather Poach	13	87	0

The respondents were also requested to recommend alternative prices if they were of the opinion that the recommended prices were too high. The results are shown in Table 7.6.

Table 7.6 Alternative prices (R per item) according to business size (number of outlets responding shown in brackets)

Item	SIZE OF OUTLET			
	Large	Medium	Small	Average
Slippers	98 (6)	90 (2)	107 (3)	99 (11)
Leather nxili	58 (2)	60 (1)	60 (1)	58 (5)
Young man's goat leather bag	72 (3)	60 (1)	82 (2)	73 (6)
Old man's hair-on leather bag	70 (3)	80 (1)	79 (2)	75 (6)

The packaging was considered satisfactory. Respondents however recommended that recycled materials be used as it is popular in the foreign market. Most of the respondents were of the opinion that a logo will not promote sales. One respondent suggested a shepherd as a logo. A swing tag with information regarding the country and region of origin and some basic information is sufficient. The main buyers of the articles will be foreign tourists.

The majority of respondents were of the opinion that separate display of articles will not promote sales. Should this be done it needs to be stocked very well with a variety of articles. Brief information with respect to the products and their origin should relate to all the articles. There must be sufficient stock in the space at all times. Most of the respondents indicated that they would prefer to do the arrangement themselves. Most of the outlets pay 30 days after delivery.

Quality, price, a swing tag with basic information, and a brochure giving details of the article (similar to those attached to the articles at the time of the survey) were considered important for the marketing of curios. The mark-up on the wholesale price is shown in Table 7.7. It is clear that smaller outlets' mark-up is lower than the larger outlets. According to the survey the average mark-up is 78 %.

Table 7.7 Mark-up on wholesale price

SIZE OF OUTLET	MARK-UP PERCENTAGE	N
Large	95	7
Medium	100	3
Small	46	5
Average	78	15

Major Exporters of Curios

The same methodology as discussed above was followed with major exporters of curios. Two major exporters in Johannesburg were interviewed using the same methodology as described above. These outlets are involved in the local marketing and export of curios. They concentrate on the upper market and as a result the samples shown to them were not in their main line of business. They were not very interested in the articles shown to them. They were of the opinion that the prices of the articles shown to them were high. They expressed the opinion that leather articles are in good supply and the competition is very strong. Producers must be innovative in their designs to stay in the market. The outlet involved in exporting of curios showed particular interest in the slippers. The quality is fine and most probably suitable for the export market. His agents in the USA will be able to comment on the export potential if he is furnished with photos of the slippers. The wholesale price needs to be decreased to R100 per pair in order to be competitive. Should these slippers be in demand he will require many slippers on a regular basis.

Both of them were however of the opinion that the demand for quality curios are increasing. They perceive a seasonal trend in the demand for curios. The peak period is August to April. The origin of their curio stock is mainly from South Africa. These outlets mark-up the price of articles approximately 150 % on the wholesale price.

7.5 Discussion and Conclusions

This chapter has investigated the potential of value-adding to goat skins in the production of goat leather products for various markets. To increase the potential for job-creation the study decided to investigate products for the curio craft market which could be manufactured by hand in the rural areas. Although the quality of the articles was perceived as good and all the respondents included in the study confirmed this, several adjustments to the designs could be made to increase acceptability. It appears that articles that are traditionally authentic will not necessarily be in demand, they may however, qualify as collector's items. It became clear that articles that are consumer friendly are preferred to those that are ethnically correct. Leather article design must be innovative and pricing must be competitive. Another matter of concern was the reaction to the pricing. The articles are hand-made and take some time to produce. However, the majority of the respondents indicated that the price of the slippers were too high, although the prices of the remaining articles were reasonable. A reduction in price would make the slippers more acceptable in the market place. It could be considered to make the slippers simpler in order to reduce the price.

These results suggest that other, more modern and practical items need to be designed in addition to the curio items developed. In South Africa Nguni skins and game skins are becoming very trendy in the home décor industry. Hair-on goat skins have similar interesting patterns as Nguni skins, and the possibility exists to venture into the interior decorating realm. It may thus be prudent to manufacture products such as cushions, lampshades, furniture, carpets, and bed-throws using almost whole skins both with hair-on or hair-off. These items require little labour to manufacture per item, and can be sold in bulk to several interior decorating outlets which have appeared on the South Africa home décor scene (e.g. Boardmans, Mr Price Home, @Home etc.). A previous market survey in the North West Province (Smuts, 1998c) indicated that the following curio items are popular with tourists: traditional African drums are high on the priority list as curios (Drums are not freely available and the demand is good); leather belts; leather hats; burnt leather engravings; sling bags; men's wallets; sandals; leather jackets; ladies handbags; catapults made of goat horn; miniature shields; leather coasters; and leather place mats. Again, these items

suggest that more modern, practical items are required by the marketplace. However, as suggested by one respondent, a swing tag with an ethnic story of the item's origin could still add appeal to the item for the local or international tourist.

The methodology designed to allow small-scale leather tanning, although convenient, is also open to criticism. The number of skins that can be tanned by hand in one week is small, and the disposal of the effluent in an unorganised manner may lead to environmental and public health concerns (especially in some rural areas where water quality is already a contentious issue). If a substantial number of goats were to be slaughtered at a central location (as suggested in the Conclusion of Chapter 5), then a similarly large number of goatskins would be available at this central location. This creates the need for a medium sized tannery close to the abattoir (to reduce transport and handling transaction costs). Tanneries are expensive facilities (asset specificity) and need to operate at effective capacities, thus a consistent supply of raw product would assist in the viability of such an operation. Effluent disposal and pollution are also concerns. However, with the latest market trends in hair-on leather products (for interior décor), a hair-on tanning facility would negate the need for the sulphur processes which are associated with hair-off tanneries (these sulphurs give the "rotten-egg" odours associated with tanneries). Furthermore, on a smaller scale, tannery effluent can be re-used (both chrome and veg tanning chemicals), and once finally spent, can be stored for collection and disposal by larger operations (Dr Clive Jackson-Moss, ISTT, personal communication, 2000).

These inherent limitations to tanning in rural areas may be overcome with vertical co-ordination with contract goat growers supplying to an abattoir, and the tannery having a contractual supply relationship for skins with the abattoir. Here, a constant supply of skins can be maintained increasing the viability of the tannery. The possibility also exists that if the goat growers are in any event contracted to supply goats to the abattoir, then a relationship could also be built with them to supply raw skins obtained from traditional use (which are often discarded). Such a relationship could also allow the tannery to educate the goat growers on improved nutrition practices to strengthen their goat skins (as indicated by the research in this chapter), and management practices which would limit scratches and scarring (such as the use of barbed wire fences). Furthermore, if only hair-on tanning were to occur (due to environmental

concerns), a relationship with a hair-off tannery could be established for two reasons. Firstly, skins that do not have interesting hair patterns can be bartered, swapped or sold to obtain hair-off leather, and, as often as required, the hair-off tannery could be contracted to collect and dispose of the used chemicals of the tanning process. Leather crafters producing items from the skins will also benefit by the consistent supply of hair-off and hair-on skins, and the bulk in which the leather will be available will allow many crafters to manufacture items which could do well in bulk retail markets (thus allowing co-operative crafting groups to be formed as suggested in this chapter).

The above discussion describes how a market-oriented approach to product development from a previously under-utilised indigenous resource has led to the suggestion of institutional arrangements which can assure that the goat producer has access to information to improve their production practices, a consistent market for skins often discarded when goats are slaughtered for household or traditional use, and the potential to be part of a vertically co-ordinated value-addition chain (which may allow the goat grower to access some of the value-added economic gains). Furthermore, employment opportunities in this sector could be high since the manufacture of the items is labour intensive. Here too the leather item manufacturers and crafters can be linked to the leather tannery (and thus to the goat producers), allowing consistent supply of raw product (and the potential to relay information regarding the characteristics of the raw product to the goat producers and the tanners – i.e. regarding quality, dyeing possibilities etc.). The value-adding potential of goat skins is the greatest of all the products from goats, and if the supply and manufacturing chain for goat leather were vertically co-ordinated through contract growing this opens up the potential to relay the financial benefits back to the producer (if the correct quality is delivered). The design of these institutional arrangements will be further addressed in Part 3 of this thesis.